MistAway® Tankless Misting Unit – Gen III
Operations Manual

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www.mistaway.com
Australia Dealer: ww.mosquitocontrol.net.au

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To Protect Against Accidental Exposure to Insecticide

Using the Unit

- Do not allow the unit to mist in the presence of people, pets or food.
- Unit must be configured, installed and operated so that any insecticide application complies with all label directions, including application rate and prohibitions against offsite drift.
- The unit should be locked.
- Unit and remote transmitter should be secured against access by children.
- DIP Switches on remote transmitter should be repositioned (from factory setting) to ensure that another transmitter will not activate unit.
- If a leak or siphon in nozzle circuit is suspected, disconnect nozzle circuit from unit and discontinue use of unit until it is repaired.
- Unit must never be used for cooling.

Permitted Insecticides and Handling

- Use only insecticides that are labeled for use in automated misting systems, and use only as described in the label.
- Insecticides that state “Not for use in outdoor residential misting systems” may not be used under any circumstances.
- Insecticide label should be securely attached to the cartridge inserted in the unit.
- Strictly follow label instructions regarding storage and disposal of insecticide and container.

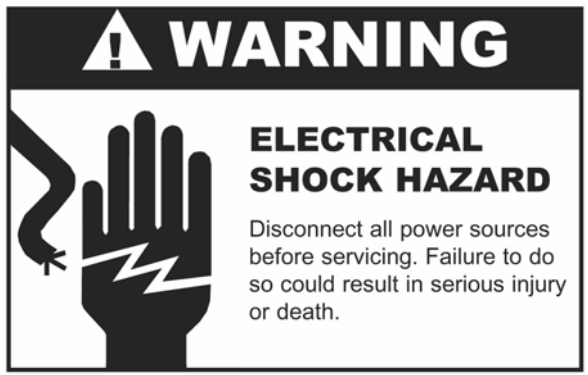
Nozzle Circuit Installation:

- The nozzle circuit must be configured and installed so that insecticide does not drift off the property.
- Nozzles must be directed to spray towards the target area and away from swimming pools, water bodies, or eating and cooking areas.

Section 1
Important Safety Instructions

To Protect Against Fire or Electric Shock

- Ensure unit is positioned where it is free from flooding or exposure to irrigation system spray.
- Unit must be plugged into electrical outlet with ground fault interrupt protection. (GFI/GFCI)
- Extension cord must not be used.
- Disconnect unit from power source if replacing components.
- Replace fuses only with those of equivalent value.


WARNING
ELECTRICAL SHOCK HAZARD
Disconnect all power sources before servicing. Failure to do so could result in serious injury or death.

Base Functionality

- MistAway's Tankless Misting Unit, Gen III, is a batch processing unit that precisely mixes water from a faucet and concentrated botanical insecticide from a cartridge in a batch tank and then atomizes it through an installed nozzle circuit to control mosquitoes and other annoying insects.
- The capacity of the unit is dependent on the configuration of the nozzle circuit. A practical field maximum is around 60 – 75 nozzles (some in parallel) connected by 900 feet of tubing.
- The unit may be programmed to mist up to 12 times daily, with each mist cycle having its own independent duration. A typical program would consist of 2 to 3 mist cycles per day, each with a 45 – 60 second duration, for a daily total of 90 – 180 seconds.
- The unit will also mist in response to a signal from a handheld remote transmitter for a duration programmed by the user.

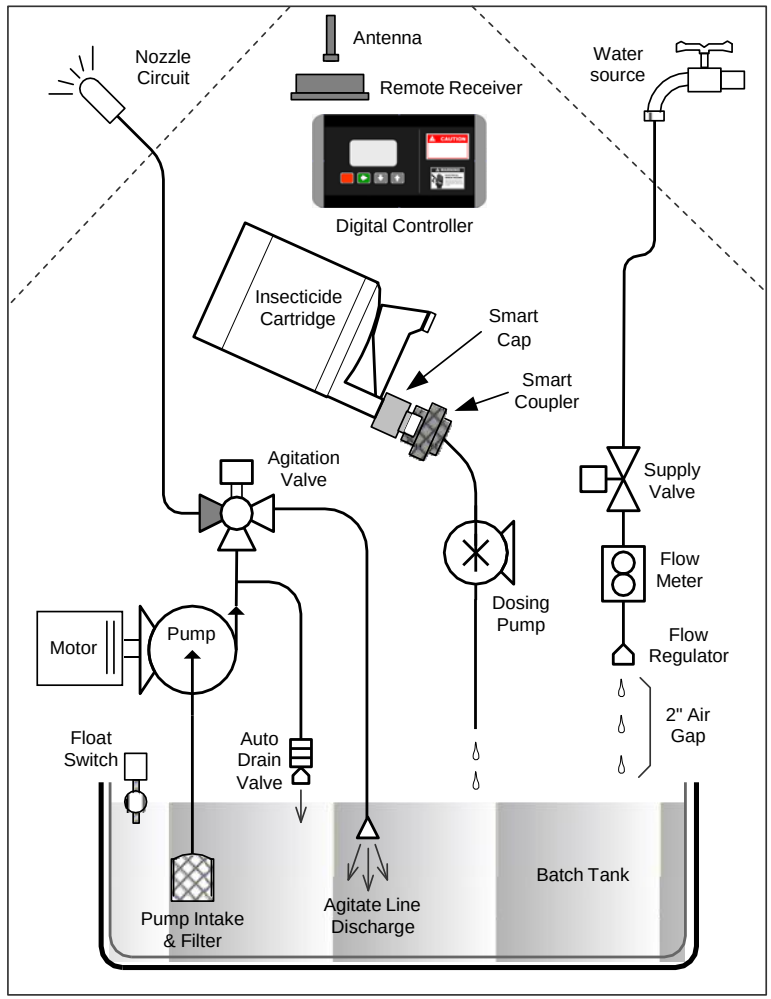
Optional Equipment and Functionality

- **Wind Sensor**: Sensor input will inhibit a programmed mist if the wind speed is higher than a user-defined limit for a 5 minute period following the scheduled mist.
- **Zone Kit**: Kit will enable the unit to effectively double the number of nozzles and protected area that it would otherwise support. A single schedule drives misting in both zones.

Section 2
Functionality and Components

Batch Control

The operations of the Gen III are managed by a digital controller and a number of electro-mechanical components. The controller gets information about dosing and agitating the insecticide from an electronic tag that is embedded in the Smart Cap on the insecticide cartridge.



Components – Interface and Controls

- **Digital Controller** – accepts user input, displays unit operating mode and status, controls electromechanical components.
- **Remote Receiver & Antenna** – receives signal from handheld remote transmitter. Receiver located on underside of enclosure lid.
- **LED warning light** – annunciates unit status – warning, misting, suspended due to error or empty cartridge. Located on top of enclosure lid.

Components – Fresh Water Flow Control

- **Supply Valve** – opens to allow water to flow from faucet into batch tank.
- **Flow Meter** – on inlet water line, measures flow into the batch tank. Used to control insecticide dosing and error condition calculations.
- **Float Switch** – closes supply valve when batch tank is full.
- **Flow Regulator** – ensures smooth flow of water into batch tank. Positioned to ensure 2" air gap between water supply and batch tank contents.

Components – Insecticide Flow Control

- **Insecticide Cartridge** –vented two-chamber bottle containing one of a number of botanical insecticides.
- **Smart Cap** – embedded RFID (radio frequency identification) tag programmed with information to control dosing, agitation, cartridge volume display and misting limits.
- **Smart Coupler** – accepts snap-in Smart Cap, reads the information stored on it and passes it to the controller.
- **Dosing Pump** – precisely meters insecticide concentrate from the cartridge into the batch tank.

Section 2
Functionality and Components

Components – Agitation and Atomization

- **Batch Tank** – 2 gallon plastic tank with enough capacity to enable a 60 nozzle circuit to mist for 120 seconds.
- **Pump & Motor** – atomizes batch tank contents through nozzle circuit. Pump pressure typically set to 240 psi.
- **Agitation Valve** – One path through the valve routes fluid to the nozzle circuit. The other path recirculates fluid in the batch tank through the agitation line. Each mist (including REMOTE MISTs) will be preceded by an agitation cycle that will ensure thorough mixing of the batch tank contents prior to misting. In addition, there is a once daily agitation that is independent of any AUTO or REMOTE MIST. The agitating valve also eliminates the possibility of a siphon emptying the batch tank contents.
- **Pump Intake Line and Filter** – Pump intake positioned near bottom of batch tank. Filter ensures debris is not drawn into pump and nozzle circuit.
- **Agitation Line** – during agitation, batch tank contents are recirculated to ensure thorough mixing prior to misting.
- **Auto-Drain Valve** – ensures rapid increase in nozzle circuit pressure on pump startup and rapid decrease on shutdown.

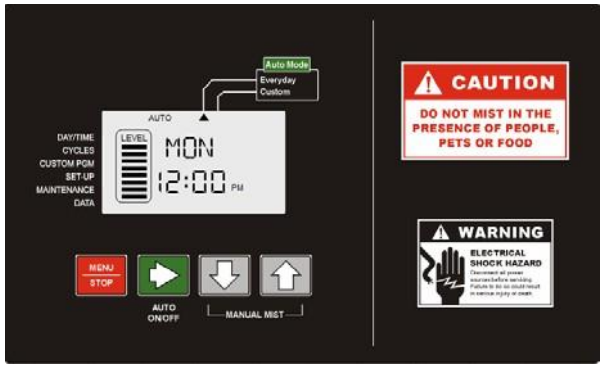
Components - Structural

- **Enclosure and Lid** – sturdy powder-coated galvanealed metal walls, locking lid, and aluminum chassis and feet.
- **Shroud** – black plastic inner shelf with well for snap-in insecticide cartridge. Supports recessed controller and pressure gauge.

Other Components

- **Remote Transmitter** – 3-button remote enables the user to start a mist, stop a mist and skip the next scheduled mist.
- **Key** – for lock that is located on top front wall of enclosure.

Programming the Controller



- When the unit is powered up and idle, the controller display indicates four pieces of information:
  1. Day of the week
  2. Time of day
  3. System mode (Off, On, Auto-Everyday, Auto-Custom)
  4. Cartridge Level (each bar indicating cartridge 1/8th full)
- Pressing Green ► button will cycle through each of four System Modes. Active mode indicated at top of display.
  1. OFF – Unit will perform a daily agitation cycle and otherwise sit idle.
  2. ON – Unit will allow Remote and MANUAL MISTs, but no AUTO MISTs.
  3. AUTO-EVERYDAY – Misting program runs daily.
  4. AUTO-CUSTOM – Misting program runs on days set in CUSTOM PGM menu.
- Pressing Red MENU/STOP button displays triangular cursor by DAY/TIME position on left side of display. Use ▲ or ▼ buttons to cycle through menu structure. Use Green ►button to select menu item and view or change data element within that item.
- Within a menu item, the convention is that the flashing data element can be changed with the ▲ or ▼ buttons. Move to the next data element with the Green ► button.
- Exit the menu item by pressing the MENU button. The unit will revert to previous System Mode in 3 minutes if the MENU button is not pressed.

Section 3
Operating Instructions

Controller Menu Structure

DAY/TIME Menu Set the Day of the Week and the Time of Day.

CYCLES Menu Configure the mist time and duration of each of the twelve possible AUTO MIST Cycles (Each with unique duration and time of day.)

CUSTOM PGM Menu Configures the days of the week for AUTO MISTing in the AUTO-CUSTOM PGM mode. (Turn each day OFF or ON.)

SET-UP Menu

DST	Turn daylight savings time switch ON or OFF.
REM	Set the duration for mists triggered by the remote transmitter. (Values from OFF to 120 seconds)
LRN	Program unit to recognize a specific remote transmitter. Hold down Green ► button for 5 seconds and wait for countdown to begin. Press and hold any button on the remote transmitter. When DONE flashes in the display, the transmitter is programmed.
MAN	Set the duration for mists triggered by a MANUAL MIST (pressing ▲ and ▼ buttons simultaneously for 2 seconds.)
NOZ	Set the Number of nozzles in the circuit attached to the unit. If Zone Kit installed, there are separate displays for NZ1 and NZ2.
SEN	Turn (optional) wind sensor ON or OFF
WND	Set max wind speed (above which wind sensor reading inhibits mist.)
AGT	Set time of once daily off-cycle agitation. (Note: Agitation duration preceding AUTO MIST is read from cap.)

ZN1/ZN2 Enable or disable misting in Zone 1 and (optional) Zone 2.

Controller Menu Structure (continued)

MAINTENANCE Menu

DRN Drain. Unit will mist until batch tank is empty and pressure falls. Hold Green ► button for 5 seconds to trigger.

INS Unit is in Inspection Mode. Unit will fill with water and then mist for 5 minutes (refilling as necessary) without adding insecticide. Hold Green ► button for 5 seconds to trigger. If a Zone Kit is installed, there are separate inspection menus, INS1 and INS2.

WINT Winterizing step which holds inlet supply valve and agitation valve open for 30 seconds to allow any remaining trapped fluid to drain. Hold Green ► button for 5 seconds to trigger. See *Section 5, Maintenance and Winterization Instructions* for more detail about winterizing the unit.

PC CDE PRO-CAP Code. Secure access to menus that allow licensed technician to program the PRO-CAP.

Section 3
Operating Instructions

Controller Menu Structure (continued)

DATA Menu

DM Daily Mist time (cumulative, in seconds)

MX Maximum Daily Mist allowed (in seconds, read from cap)

TMC Total Mist Cycles since last reset* (*Reset by pressing Green ► button until value shows zero.)

TMM Total Mist Minutes since last reset*

MMC MANUAL MIST Cycles since last reset*

RMC REMOTE MIST Cycles since last reset*

TMH Total Mist Hours on unit. May not be reset.

PRH Cumulative dosing pump run time in hours. May not be reset.

SPD Wind speed as read by sensor

FL Batch tank fill volume (in milliliters) following last mist

DS Dose volume (in milliliters)

CF Full cartridge volume (in milliliters)

CR Remaining cartridge volume (in milliliters)

MIX Insecticide mix ratio, expressed in Parts Water:Parts Insecticide

TOL Error tolerance in nozzle circuit flow rate. Default is 80%. Used in error condition calculations.

NFR Flow rate of average nozzle in circuit, in milliliters per minute. Used in error condition calculations. Default is 45 ml/min. Set by pressing Green ► button for 5 seconds, then ▲ and ▼ arrows, then Green ► button to save.

E Cartridge type (read from cap)

F Cartridge Installer (read from cap)

G Fluid family (read from cap)

H Specific fluid (read from cap)

J Dosing Pump flow rate

DUE Days Until Empty. Remaining volume in cartridge, expressed in days of use until empty (Based on 14 day moving average consumption. DUE reflecting first 14 days use will be inaccurate.)

E### Firmware version on RFID reader

Operating Displays

There are a number of other displays that will appear when the unit is either operating or suspended (and not idle or being programmed.)

AGT Unit is agitating contents of batch tank.

DOSE Unit is adding insecticide to batch tank through dosing pump.

DRN Drain. Unit will mist until batch tank is empty and pressure falls.

FILL Inlet supply valve is open and filling batch tank with water.

HOLD Agitation valve is being held open at end of mist cycle to allow pressure in nozzle circuit to decay and close nozzles quickly.

INS Unit is in Inspection Mode. Unit will mist for 5 minutes or until stopped, refilling as necessary and without adding insecticide.

MIST Unit is misting.

SKIP Unit will skip next programmed mist, having received signal from remote transmitter to SKIP NEXT MIST. Clear by pressing ▲ and ▼ arrows simultaneously for 2 seconds.

SUS During 5 minute period following AUTO MIST, wind sensor is reading higher than user-set max and unit is suspending AUTO MIST.

VENT Prompt for user to vent the insecticide bottle by removing the cap from the top port and penetrating the bottle seal. Loosely replace vent port cap. Press Green ► button to continue.

WRN Unit is in warning period before misting.

The previous mist was skipped because SKIP NEXT MIST was triggered by the remote or the wind sensor blocked an AUTO MIST.

Cartridge Status Displays

In addition to the Cartridge Level Indicator, there are three other displays that describe the status of the insecticide cartridge:

EMP CAR Smart Cap or PRO-CAP data indicates empty cartridge.

NO CAR No cartridge inserted in unit.

INV CAR Invalid data on Smart Cap or PRO-CAP.

Section 3
Operating Instructions

External LED Indications

The LED is located on the back left of the enclosure lid. The flash pattern of the LED will indicate the operating status of the unit.

NO LIGHT Unit is idle.

RAPID FLASH Unit is about to mist and is either in the warning or agitate stage of the cycle.

SOLID LIGHT Unit is misting.

SLOW FLASH Either the cartridge is empty, a SKIP MIST has been triggered by the remote transmitter, or there is an error condition.

Error Code Displays

The unit may display one of several self-diagnosing error codes under problem conditions.

ERR 1 Batch tank level dropped during agitation. Potential problems: leak in batch tank, agitation valve failed

ERR 2 Fill volume less than expected. Potential problems: pump intake or nozzle circuit clog, pump or motor failure.

ERR 3 Fill volume greater than expected. Potential problem: leak in nozzle circuit.

ERR 4 Batch tank took too long to fill. Potential problem: water faucet turned off, low water pressure, flow meter failure.

ERR 5 Batch tank fill volume exceeds Max. Potential problem: leak in batch tank, float switch failure.

NOZ00 Number of nozzles set to 0.

ERR rF Controller unable to communicate with Smart Coupler.

To clear an ERR condition, press Red MENU/STOP button for 5 seconds, then reset System Mode using Green ► *button.*

Manual Operations

There are a number of operations that can be performed while standing at the unit:

- **STOP** - Pressing Red MENU/STOP button will immediately stop any current operation of the unit, but will not change the System Mode from AUTO to OFF. (To change the System Mode to OFF, use the Green ► Auto/On/OFF button to cycle through each of four System Modes. Active Mode indicated across top of display.)
- **MANUAL MIST** - Pressing the ▲ and ▼ arrows simultaneously (2 seconds) will activate a mist cycle for the duration programmed in the SET-UP menu.
- **INSPECT** - Unit will mist for 5 minutes or until stopped, refilling as necessary and without adding insecticide. Navigate to INS in the MAINTENANCE Menu. Press the Green ► button for 5 seconds.
- **DRAIN** - Unit will mist until batch tank is empty and pressure falls. Press Green ► button for 5 seconds to trigger.
- **MANUAL CHARGE** – In startup, after inspecting the nozzle circuit, when the batch tank is filled with fresh water, it is necessary to dose enough insecticide to bring the contents to the desired concentration. Navigate to INS within the MAINTENANCE Menu. Press all three (►▲ ▼) arrow buttons simultaneously for a period of 5 seconds. A countdown will display an extended DOSE step.

Remote Transmitter

Orienting the Transmitter

- The unit must be programmed to recognize a specific remote transmitter.
- Prior to this step, the DIP Switches on the transmitter should be repositioned (from factory setting) to ensure that another transmitter will not activate unit. (Photo on next page.)
- In the LRN Menu, under SET-UP, hold down Green ► button for 5 seconds and wait for countdown to begin. Press and hold any button on the remote transmitter. When DONE flashes in the display, the transmitter is programmed.

Section 3
Operating Instructions

Remote Transmitter (continued)

Set DIP Switches on Remote Antenna

Switches are located on back side of transmitter, on side opposite the antenna, under a small plastic cover. Use the end of a pen to change the position of 2-3 of the switches.

MIST Button

- Activates a REMOTE MIST for the duration defined in the SET-UP menu
- An agitation cycle will precede the REMOTE MIST.
- If a Zone Kit is installed, the unit will mist in Zone 1, make up a new batch, and then mist in Zone 2.

STOP MIST Button

- The STOP MIST button stops the current operation of the unit. It will not change the System Mode from ON or AUTO to OFF.

SKIP NEXT MIST Button

- The SKIP NEXT MIST button enables the next programmed AUTO MIST to be skipped. The controller will display “SKIP.”
- While the unit is flashing SKIP, it will still respond to a Remote or MANUAL MIST.
- When an AUTO MIST has been skipped, the unit will return to the normal display, with a flashing “sunshine” icon in the lower right corner of the display.
- You may only skip one mist at a time. That is, pushing the SKIP NEXT MIST button multiple times will not cause multiple AUTO MIST cycles to be skipped.

To clear SKIP, hold the ▲ and ▼ buttons simultaneously for 2 seconds.

Section 3
Operating Instructions

Replenishing the Insecticide

IMPORTANT!!! *Before inserting the cartridge into the Smart Coupler, be sure the Smart Cap is securely screwed onto the cartridge, but not overtorqued. The contents may leak out and damage the unit if the cartridge threads are stripped or the Smart Cap is cross-threaded.*

- **EMP CAR (Empty Cartridge):** The electronic Smart Cap on the insecticide cartridge contains a "virtual volume" representing the amount of fluid left in the cartridge. Each time the unit doses insecticide from the cartridge into the batch tank, the remaining "virtual volume" is reduced. When the "virtual volume" equals 0, EMP CAR (empty cartridge) is displayed and it is time to replenish the insecticide.
- **If a professional is servicing your unit**, it is likely that he will have acquired a special kind of Smart Cap, called a PRO-CAP, from MistAway. The PRO-CAP is a Smart Cap that is programmable and is available only to professionals. In addition to refilling the "virtual volume" in the cap, a technician is able to set the dose rate and agitation time, which may vary with the conditions or the insecticide the technician is using. For this reason, access to the PRO-CAP's information is secured by a pin code, set and known only to the servicing professional. If you decide to change service providers, your new service professional will provide his own PRO-CAP.
- **If you are replenishing the unit yourself**, you will need to purchase another cartridge of insecticide with a pre-programmed Smart Cap. Either contact the dealer who installed your unit or contact us at www.mistaway.com, and we will direct you to a source for refill cartridges. Currently, there is only one type of insecticide available for snap-in replenishment. It is called SummerFrost Maintenance Mist, and it is a water-based pyrethrin formulation labeled specifically for misting. MistAway plans to add two additional formulations - one for extreme problem conditions, and an EPA-exempt essential formulation - to the SummerFrost line in the near future. Each will come equipped with its uniquely programmed Smart Cap, engineered to optimally apply and manage the insecticide.

Section 4
Assembly and Installation Instructions

1. Position Gen III Unit	• On firm level surface • Free from flooding or sprinklers • Near GFCI outlet and faucet
2. Install Water Supply Line	• Use supplied adapter and 3/8" black nylon tubing
3. Connect Nozzle Circuit	• To bulkhead fitting • If zone kit, install according to instructions provided
4. Connect Remote Antenna	• In plastic bag with keys
5. Connect Electric Power	• GFCI Outlet • 100 volts minimum • 15 amp service required, 30 amp service recommended
6. Run Inspection Cycle	• MAINTENANCE Menu, scroll to INS • Depress Green ► button 5 seconds • Unit will fill then mist for 5 minutes or until stopped • Confirm pump pressure (240 psi) and insert plug (in bag) • If zone valve installed, repeat for INS2
7. Secure Smart Cap or PRO-CAP and Insert Bottle	• If PRO-CAP, EMP CAR (empty cartridge) will flash. Program PRO-CAP per enclosed instructions • If Smart Cap, no further action required

8. Program Controller

a. Set Daylight Savings Time switch
- SET-UP Menu, DST
- ON if daylight savings in effect, OFF if not.

b. Set Day and Time
- DAY/TIME Menu

c. Set REMOTE MIST Duration
- SET-UP Menu, REM
- Set duration in seconds

d. Orient Remote Transmitter
- Set dip switches in remote transmitter
- SET-UP Menu, LRN
- Depress Green ► button 5 secs, until LRN On and countdown starts
- Depress Remote Transmitter button until DONE is displayed

e. Set MANUAL MIST Duration
- SET-UP Menu, MAN
- Set duration in seconds

f. Set # of nozzles
- SET-UP Menu, NOZ
- If zone valve installed, repeat for NOZ2

g. Establish optional Wind Sensor
- SET-UP Menu, SEN
- If sensor installed, ON. Otherwise OFF

h. Set Max Wind Speed (wind sensor required)
- SET-UP Menu, WND
- Set max wind speed

i. Set Independent Agitation Time
- SET-UP Menu, AGT
- Set time of daily agitation cycle
- Duration will be read from cap

Section 4
Assembly and Installation Instructions

8. Program Controller (continued)

j. Set AUTO MIST Cycles
- CYCLES Menu
- Set duration and time for up to 12 automatic cycles

k. Set AUTO MIST Days
- CUSTOM PGM Menu
- Set days of week to ON or OFF
- Only active if system AUTO MODE is Custom

9. Drain Batch Tank
- Remove nozzle or tip from circuit
- MAINTENANCE Menu, DRN
- Depress Green ► button 5 seconds
- Unit will agitate, then run until tank empties and pressure falls
- Press STOP button
- Replace nozzle or tip

10. Activate REMOTE MIST Cycle
- Ensure System Mode ON or AUTO
- Unit will FILL, then DOSE for an extended period (in order to bring entire batch tank up to programmed concentration)
- Unit will agitate (AGT) and MIST

11. Set System Mode
- OFF - daily agitation cycle only
- ON – remote and manual, but no programmed mist
- AUTO Everyday – program runs daily
- AUTO Custom – program runs on days configured in CUSTOM PGM

12. Close Lid and Lock
- Secure key in a safe location

Maintenance with Each Refill

- If using a water-based insecticide in the unit, no maintenance is required with each refill.
- If using an **essential oil based insecticide:**
  1. **Drain the batch tank** (MAINTENANCE Menu, DRN, Press Green ► button for 5 seconds.)
  2. **Run Inspect** to flush the batch tank and nozzle circuit. (MAINTENANCE Menu, INS, Press Green ► button for 5 seconds.)
  3. **Execute a MANUAL CHARGE** to bring the tank concentration up to the required level. Navigate to INS in MAINTENANCE Menu. Press all three (►▲ ▼) buttons simultaneously for a period of 5 seconds. DOSE and a countdown will be displayed.

Annual Maintenance (at startup or during Winterization/Shutdown)

- **Drain the batch tank.** (MAINTENANCE Menu, DRN, Press Green ► button for 5 seconds.)
- **Remove the unit's wall panels**.
  1. Remove two front acorn nuts on plastic shroud in unit.
  2. Back out, but do not remove middle screw on front wall of enclosure at bottom.
  3. Remove all other screws from enclosure walls.
  4. Flex walls and lift up to remove.
- **Clean or replace filter on pump intake line in the batch tank.**
- **Replace Auto Drain Valve tip on pump discharge line.** (Valve enables rapid pressurization at pump startup and rapid depressurization on pump shutdown.)
- **Replace unit wall panels.**
- If preparing for operation, **execute a MANUAL MIST**. Unit will FILL, go through an extended DOSE step , AGITATE and MIST.

Section 5
Maintenance & Winterization Instructions

Winterization (performed at Fall shutdown)

- **Flush coupler, dosing pump and insecticide flow line.**
  1. Screw Smart Cap or PRO-CAP onto a vented bottle filled with either clean water or potable water anti-freeze.
  2. Execute a MANUAL CHARGE to bring the tank concentration up to the required level. Navigate to INS in MAINTENANCE Menu. Press all three (►▲ ▼) arrow buttons simultaneously for a period of 5 seconds. DOSE and a countdown will be displayed. The unit will run the dosing pump for an extended period, flushing insecticide out of the pump and line. You may interrupt the dose after 2 minutes.
  3. Remove Smart Cap from bottle and snap into Smart Coupler. Execute a MANUAL CHARGE to evacuate fluid from insecticide flow line. Interrupt DOSE after 2 minutes.
- **Flush batch tank, pump and agitation valve with clean water.**
  1. Drain the batch tank. (MAINTENANCE Menu, DRN, Press Green ► button for 5 seconds.) Press STOP when pressure falls.
  2. Run Inspect to flush the batch tank and nozzle circuit (MAINTENANCE Menu, INS, Press Green ► button for 5 seconds.) If zone kit, run INS1 and INS2 to flush both nozzle circuits.
  3. Run DRN to drain the batch tank again.
- **Evacuate remaining fluid from inlet water line and pump discharge line.**
  1. Disconnect nozzle circuit from unit.
  2. Disconnect water supply line.
  3. Use WINT function to hold inlet supply valve and agitation valve open for 30 seconds to allow any remaining trapped fluid to drain. WINT in MAINTENANCE Menu. Hold Green ► button for 5 seconds to trigger.
  4. Lift left side of unit about 4" to let water run out of valve.
- **Unplug unit**, coil power cord and stow under unit.

Why does this machine have to be plugged into a GFI circuit?

- As an outdoor electrical appliance that is often exposed to the elements, for protection of both the installer and end-user it is required that the unit is plugged into an electrical outlet that has Ground Fault Interrupt (GFI or GFCI) protection.
- Please note that the unit also requires a minimum electrical service of 15 Amps. 30 amp service is recommended.

Does installation require that a backflow preventer be installed on the water faucet?

- To eliminate the possibility of insecticide back-contaminating the water supply, the unit has a built-in 2" air-gap in the inlet water supply circuit that is generally recognized to be double the minimum code requirement for back-flow prevention.
- Refer to your local municipal plumbing code. It is possible that if the unit will be connected to a faucet equipped with a vacuum-breaker, you may be required to plumb an alternate dedicated connection.

What happens if the power to the unit is turned off and back on?

- When electrical power is restored to the unit, the digital controller will reboot into the same mode the unit was operating in prior to the power being turned off.
- For example, if the unit was in AUTO-EVERYDAY mode prior to the power being powered off, it will reboot into AUTO-EVERYDAY mode when the power is restored
- The controller features a "Super Capacitor" that stores enough electrical power to run the internal clock for up to six weeks in the event power to the unit is turned off. There is no battery for the clock.
- All programmed settings are maintained regardless of how long the unit has gone without power.

Section 6
Frequently Asked Questions

What happens if the water supply to the unit is accidentally turned off?

- When the unit attempts to build the next batch, it will lock with an ERR 4 indication.
- Once the water pressure is restored, you may clear the ERR 4 indicator by holding the Red MENU/STOP button for 5 seconds. Reset System Mode with Green ► button. The unit will not clear this error automatically.

Can I set unique AUTO MIST times/durations for each day of the week?

- No. While you may use the CUSTOM-PGM menu to turn specific days of the week ON or OFF, each day set to ON will mist according to the AUTO MIST cycles defined under the CYCLES menu. You cannot customize mist times for each day.

If I press "STOP MIST" on the remote, does that set the system Mode to OFF?

- No. When STOP MIST is pressed on the remote, or the STOP button is pressed on the controller, the unit simply halts whatever current activity it is executing, be it misting, agitating, etc. The System Mode remains unchanged.

When should I set the Daylight Savings Time switch (DST) to ON or OFF?

- DST, which is found under the SET-UP menu, is a feature added for convenience of the user.
- If DST is changed from OFF to ON, two events happen automatically:
  1. The clock is advanced forward one hour
  2. The time for each mist cycle, as defined in the CYCLES menu, is advanced forward one hour.
- The reverse of the above occurs when DST is changed from ON to OFF.
- DST ON is the setting that would be used in the summer months.

The manual mentions a zone kit. What is a zone kit, and how do I know if I have one?

- A zone kit is primarily composed of a solenoid valve attached to the unit that enables the system to sequentially mist through two different nozzle circuits, effectively doubling the capacity of the unit.
- Units with zone kits may be visually identified by the presence of a small separate housing mounted on the back side of the unit.
- For units with zone kits, the controller is also slightly different in the SET-UP menu.
- The number of nozzles setting “NOZ” is replaced by “NZ1” and “NZ2”, representing the number of nozzles in Zone 1 and Zone 2 respectively.

I have the optional zone kit installed. Can I use the remote to trigger each zone individually?

- No. When the Remote is used to trigger a mist, and a zone kit is installed, the unit will mist according to which zones are set to “ON” in the controller.
- If you wish to suspend one zone for a period of time, navigate to the SET-UP menu and set ZN1 or ZN2 to OFF, depending on your needs.

What is SEN ON/OFF in the SET-UP menu? Is this for a wind sensor?

- SEN enables an external wind sensor package to be turned on or off.

When the unit is agitating, the pump pressure only shows 30 psi. Is this normal?

- Yes. When agitating, the pump is circulating fluid through the batch tank and it is normal for the pressure to be lower than it is when misting.

Section 6
Frequently Asked Questions

What is the symbol that looks like a “sunshine” flashing in the lower right corner of the display?

- The small “sunshine” indicates that the previous mist was skipped for one of three reasons:
  1. The user triggered a SKIP NEXT MIST with the remote, and the most recent AUTO MIST was skipped. The next AUTO MIST will be executed as programmed.
  2. The Maximum Daily Mist time has been reached.
  3. The (optional) wind sensor blocked the previous AUTO MIST

What does the flashing LED light on the top of the unit indicate?

- The LED is used to indicate the status of the system:
  - **SOLID LIGHT** – unit is misting
  - **RAPID FLASH** – the unit is about to mist and is either in the warning or agitate stage of the cycle.
  - **SLOW FLASH** – either the cartridge is empty, a SKIP MIST has been triggered by the remote or there is a mechanical error with the unit

Why does the display read “HOLD” immediately after the unit finishes misting?

- The unit will hold the agitation valve open for a brief period following the end of a mist. This action enables the pressure present in the nozzle circuit to quickly bleed off into the tank, rapidly shutting the nozzles. If this function was not present, the nozzles would “weep” or drip following the mist as the pressure in the nozzle circuit for that zone would not be able to bleed off.

Why is MX, the Maximum Daily Mist value on the DATA menu is set so high?

- The Maximum Daily Mist functionality is built into the unit in anticipation of possible future regulatory requirements that might limit the daily volume that it may disperse in a single day.
- The value for the Maximum Daily Mist is programmed into the Smart Cap on the cartridge, and can easily be adjusted if regulations change.

Section 6
Frequently Asked Questions

Will the system recover if I press STOP in the middle of the batch makeup process?

- Yes, prior to the next mist cycle, the system will check the level of the tank. If the dosing cycle was stopped prematurely, the system will build the batch correctly prior to agitating during the next mist cycle.

I need to move the unit. How do I empty the internal mixing reservoir?

- Execute the built-in Drain function. Navigate to DRN in the MAINTENANCE Menu. Press the Green ► button for 5 seconds. After a warning period, the system will drain the contents of the batch tank through the nozzle circuit.
- Note: ensure the area is free of people, pets and food when executing the DRN function.

Section 7
Troubleshooting

Problem: The unit clock shows odd numbers.

- *Potential Cause*: The clock has not been set.
- *Action*: On brand new units, the clock must always be set when it is powered for the first time. Refer to Step 8b in *Section 4, Assembly and Installation Instructions*.

Problem: Just before misting, the displays shows “NOZ00” and the unit stops.

- *Potential Cause*: The Number of Nozzles is set to 0.
- *Action*: Repeat Step 8f in *Section 4 , Assembly and Installation Instructions* to set the Number of Nozzles.

Problem: The REMOTE MIST won’t work.

- *Potential Cause*: System Mode set to OFF
- *Action*: Set System Mode to On or AUTO

or

- *Potential Cause*: REMOTE MIST Duration set to OFF
- *Action*: Set REMOTE MIST Duration (SET-UP Menu, REM)

or

- Potential Cause: Unit does not recognize Remote Transmitter
- Action: Repeat Step 8d to (in Installation Instructions) to program the unit to recognize the remote transmitter

or

- *Potential Cause*: Remote antenna not installed
- *Action*: Verify rubberized black antenna is screwed on tightly to the enclosure lid.

Problem: MANUAL MIST doesn’t work.

- *Potential Cause*: System Mode is set to OFF.
- *Action*: Repeat Step 8e in the Installation Instructions to set the MANUAL MIST duration.

Problem: The unit will not AUTO MIST.

- *Potential Cause*: System Mode set to OFF or ON
- *Action*: The System Mode must be set to AUTO-EVERYDAY or AUTO-CUSTOM in order for the AUTO MIST to work.

Or

- *Potential Cause*: No AUTO MIST cycles defined
- *Action*: Define mist cycle time and duration in CYCLES Menu

Problem: Unit mists randomly during the day.

- *Potential Cause*: System receiving a remote signal from another source.
- *Action*: Change the DIP switches on the remote and reprogram the unit to recognize the remote. See *Section 3, Operating Instructions – Remote Transmitter.*

Problem: The motor runs, but the unit isn't misting at all, or the nozzles are sputtering.

- *Potential Cause*: Air is being introduced into the pump suction.
- *Action*: Verify the pump suction pipe and discharge tubing is firmly engaged in the pump fittings. Verify that the Auto Drain Valve is attached.

or

- *Potential Cause*: Pump collar loose.
- *Action*: Use a screwdriver to verify that the collar securing the pump to the electric motor is tight.

or

- *Potential Cause*: Suction filter clogged.
- *Action*: Remove and clean the suction filter at the end of the pump suction pipe.

Section 7
Troubleshooting

Problem: The system display is flashing "EMP CAR" and the external LED is flashing.

- *Potential Cause*: Cartridge is empty.
- *Action*: Replace the cartridge. See *Section 3, Operating Instructions – Replenishing the Insecticide.*

Problem: The system display is flashing "INV CAR" and a number.

- *Potential Cause*: If the number in the display is 10 or 11, the cartridge inserted into the unit is not authorized for use in that unit.
- *Action*: Replace cartridge.

Or

- *Potential Cause*: If the number in the display is 20 or 21, there is an internal electrical error in the system.
- *Action*: Contact your dealer.

Problem: The system display shows "ERR" and a number and the external LED is flashing.

- *Potential Cause*: Unit is in error condition
- *Action*: Corrective action depends on specific error condition. See *Section 3, Operating Instructions – Error Code Displays*

Section 8

WARRANTY AND LIMITATION OF REMEDY AND LIABILITY

MistAway Systems Inc. (MSI) warrants this Product – the MistAway Tankless Misting Unit, Gen III – to be free from defects in material and workmanship as follows:

For a period of one (1) year from the date of original installation (whether or not actual use begins on that date), MSI will repair or replace defective parts, with new or refurbished parts, at its option, at no charge. This warranty does not include labor or other costs incurred for diagnosing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts.

This warranty applies solely to equipment supplied by MSI and is in lieu of all other warranties, expressed or implied. No person, agent, dealer, or distributor is authorized or empowered to give any other warranty or to assume any other liability on behalf of MSI

Warranty Conditions:

- This warranty is extended only to the original Purchaser and is not transferable.
- A purchase receipt or other proof of date of original purchase will be required before warranty service is rendered.
- Installation, use, care and maintenance must be normal and in accordance with instructions contained in the operating manual and MSI's service information. Failure to do so shall void this warranty.
- All claims for failure to conform to specifications or defects in material or workmanship under this warranty must be made promptly after discovery and, in any event, must be received by MSI not more than one year after the original purchase date.
- MSI reserves the right to inspect the equipment prior to any decision involving a warranty claim.
- MSI reserves the right to make warranted repairs at either the installed site or at MSI's location in Houston, TX. If MSI opts for repair at its own location, the Purchaser is responsible for shipping the item to MSI's Houston location at its expense.

Manufacturer's obligation under the warranty shall not apply to:

- Any equipment, which has been damaged by negligence, misuse, abuse, neglect and/or improper adjustment, accident, vandalism, acts of God, acts of war, whether declared or undeclared, improper application, or any other contingency beyond the control of MSI
- Cosmetic damage
- Damage in transit
- Failures caused by products not supplied by MSI
- Failures, which result from faulty installation, set-up adjustments, improper operation, power line surge, improper voltage supply or damage from lightning
- Any equipment that has been repaired or altered without authorization from MSI or in a manner inconsistent with such authorization
- Any unit that has not been maintained in accordance with the operator's manual
- Normal wear on any item or piece of equipment
- Lost items

Section 8

WARRANTY AND LIMITATION OF REMEDY AND LIABILITY

The foregoing is MSI's only obligation and Purchaser's exclusive remedy for breach of warranty. Purchaser's failure to submit a claim as provided above shall specifically waive all claims for damages or other relief, including but not limited to claims based on latent defects. In no event shall Purchaser be entitled to special, direct, indirect, incidental, exemplary or consequential damages, expenses, injury, lost profits, lost savings, business interruption, loss of business information, or any other pecuniary loss arising out of the use of or inability to use the equipment. In any case, MSI's entire liability shall be limited to the amount Purchaser actually paid for the item.

Except as modified in writing signed by both parties, this warranty is and shall remain the complete and exclusive agreement between the parties with respect to warranties, superseding all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this agreement.